

WHAT IS CLAIMED IS:

1. An elastomeric glove comprising:

a substrate body including a layer made of an elastomeric material, said substrate body defining an inner surface and an outer surface; and

5 a coating overlying the inner surface of said substrate body and defining a user-contacting surface of the glove, said coating comprising a crosslinked hydrogel network within which is retained an active agent capable of imparting a benefit to a user, wherein said active agent is releasable from said network when said coating is contacted with an aqueous environment.

10 2. An elastomeric glove as defined in claim 1, wherein said elastomeric material of said substrate body is selected from the group consisting of styrene-ethylene-butylene-styrene block copolymers, styrene-isoprene-styrene block copolymers, styrene-butadiene-styrene block copolymers, styrene-isoprene block copolymers, styrene-butadiene block copolymers, natural rubber latex, nitrile rubbers, isoprene rubbers, chloroprene rubbers, polyvinyl chlorides, silicone rubbers, and combinations thereof.

15 3. An elastomeric glove as defined in claim 1, wherein said elastomeric material of said substrate body is natural rubber latex.

20 4. An elastomeric glove as defined in claim 1, wherein said hydrogel network is formed from one or more polymers, at least one of said polymers being formed from at least one monomer that is hydrophilic and water-soluble.

25 5. An elastomeric glove as defined in claim 4, wherein said monomer is selected from the group consisting of vinyl pyrrolidones, hydroxyethyl acrylates, hydroxyethyl methacrylates, hydroxypropyl acrylates, hydroxypropyl methacrylates, acrylic acids, methacrylic acids, acrylic esters, methacrylic esters, vinyl pyridines, acrylamides, vinyl alcohols, ethylene oxides, derivatives thereof, and combinations thereof.

30 6. An elastomeric glove as defined in claim 4, wherein said monomer is selected from the group consisting of hydroxyethyl acrylates, hydroxyethyl methacrylates, hydroxypropyl acrylates, derivatives thereof, and combinations thereof.

7. An elastomeric glove as defined in claim 1, wherein said crosslinked hydrogel network is substantially water-insoluble.

8. An elastomeric glove as defined in claim 1, wherein said crosslinked hydrogel network is capable of achieving a water content of from about 20% to about 90%.

5 9. An elastomeric glove as defined in claim 1, wherein said crosslinked hydrogel network is capable of achieving a water content of from about 35% to about 85%.

10 10. An elastomeric glove as defined in claim 1, wherein said crosslinked hydrogel network is capable of achieving a water content of from about 50% to about 80%.

11. An elastomeric glove as defined in claim 1, wherein said active agent is a drug.

12. An elastomeric glove as defined in claim 1, wherein said active agent is a skin-conditioner.

13. An elastomeric glove as defined in claim 1, wherein said active agent is a botanical agent.

14. An elastomeric glove as defined in claim 1, wherein the average thickness of said coating is from about 0.1 to about 20 micrometers.

15. An elastomeric glove as defined in claim 1, wherein the coating comprises from about 0.001 to about 0.5 grams per gram of the glove.

20 16. An elastomeric article comprising:

a substrate body including a layer made of an elastomeric material, said elastomeric material being selected from the group consisting of styrene-ethylene-butylene-styrene block copolymers, styrene-isoprene-styrene block copolymers, styrene-butadiene-styrene block copolymers, styrene-isoprene block copolymers, styrene-butadiene block copolymers, natural rubber latex, nitrile rubbers, isoprene rubbers, chloroprene rubbers, polyvinyl chlorides, silicone rubbers, and combinations thereof, wherein said substrate body defines a surface; and

30 a coating overlying said surface of said substrate body, said coating comprising a substantially water-insoluble, crosslinked hydrogel network within which is retained an active agent capable of imparting a benefit, wherein said active agent is releasable from said network when said coating is contacted with water.

17. An elastomeric article as defined in claim 16, wherein said elastomeric material of said substrate body is natural rubber latex.

18. An elastomeric article as defined in claim 16, wherein said hydrogel network is formed from one or more polymers, at least one of said polymers being formed from at least one monomer that is hydrophilic and water-soluble.

19. An elastomeric article as defined in claim 18, wherein said monomer is selected from the group consisting of vinyl pyrrolidones, hydroxyethyl acrylates, hydroxyethyl methacrylates, hydroxypropyl acrylates, hydroxypropyl methacrylates, acrylic acids, methacrylic acids, acrylic esters, methacrylic esters, vinyl pyridines, acrylamides, vinyl alcohols, ethylene oxides, derivatives thereof, and combinations thereof.

20. An elastomeric article as defined in claim 16, wherein said crosslinked hydrogel network is capable of achieving a water content of from about 20% to about 90%.

21. An elastomeric article as defined in claim 16, wherein said crosslinked hydrogel network is capable of achieving a water content of from about 50% to about 80%.

22. An elastomeric article as defined in claim 16, wherein said active agent is a drug, skin-conditioner, botanical agent, or combination thereof.

23. An elastomeric article as defined in claim 16, wherein the average thickness of said coating is from about 0.1 to about 20 micrometers.

24. An elastomeric article as defined in claim 16, wherein the coating comprises from about 0.001 to about 0.5 grams per gram of the article.

25. A method for forming an elastomeric glove containing a substrate body and a coating overlying a surface of the substrate body, said method comprising:

dipping a hand-shaped former into at least one bath containing an elastomeric polymer to form the substrate body of the glove;

applying an aqueous solution to the substrate body or said hand-shaped former to form the coating of the glove, said aqueous solution containing at least one hydrogel-forming polymer and an active agent; and

crosslinking said hydrogel-forming polymer to form a substantially water-insoluble hydrogel network, wherein said active agent is retained within said

hydrogel network, said active agent being releasable from said network when the coating is contacted with an aqueous environment.

26. A method as defined in claim 25, wherein said aqueous solution is applied to the substrate body while present on said hand-shaped former.

5 27. A method as defined in claim 25, wherein said aqueous solution is applied to the hand-shaped former prior to being dipped into said bath.

28. A method as defined in claim 25, wherein said active agent constitutes from about 0.0001 wt.% to about 30 wt.% of said aqueous solution.

10 29. A method as defined in claim 25, wherein said active agent constitutes from about 0.001 wt.% to about 10 wt.% of said aqueous solution.

30. A method as defined in claim 25, wherein said hydrogel-forming polymer constitutes from about 0.1 wt.% to about 30 wt.% of said aqueous solution.

15 31. A method as defined in claim 25, wherein said hydrogel-forming polymer constitutes from about 0.5 wt.% to about 10 wt.% of said aqueous solution.

32. A method as defined in claim 25, wherein said aqueous solution further contains a crosslinking agent.

20 33. An method as defined in claim 25, wherein said hydrogel-forming polymer is formed from at least monomer selected from the group consisting of vinyl pyrrolidones, hydroxyethyl acrylates, hydroxyethyl methacrylates, hydroxypropyl acrylates, hydroxypropyl methacrylates, acrylic acids, methacrylic acids, acrylic esters, methacrylic esters, vinyl pyridines, acrylamides, vinyl alcohols, ethylene oxides, derivatives thereof, and combinations thereof.

25 34. A method for forming an elastomeric glove containing a substrate body and a coating overlying a surface of the substrate body, said method comprising:

dipping a hand-shaped former into at least one bath containing an elastomeric polymer to form the substrate body of the glove;

30 applying an aqueous solution to the substrate body or said hand-shaped former to form the coating of the glove, said aqueous solution containing at least one hydrogel-forming polymer;

crosslinking said hydrogel-forming polymer to form a substantially water-insoluble hydrogel network; and

incorporating an active agent into said hydrogel network, said active agent being releasable from said network when the coating is contacted with an aqueous environment.

35. A method as defined in claim 34, wherein said aqueous solution is applied to the substrate body while present on said hand-shaped former.

36. A method as defined in claim 34, wherein said aqueous solution is applied to the hand-shaped former prior to being dipped into said bath.

37. A method as defined in claim 34, further comprising applying an additional aqueous solution containing said active agent to said hydrogel network.

38. A method as defined in claim 34, wherein said hydrogel-forming polymer constitutes from about 0.1 wt.% to about 30 wt.% of said aqueous solution.

39. A method as defined in claim 34, wherein said hydrogel-forming polymer constitutes from about 0.5 wt.% to about 10 wt.% of said aqueous solution.

40. A method as defined in claim 34, wherein said aqueous solution further contains a crosslinking agent.

41. An method as defined in claim 34, wherein said hydrogel-forming polymer is formed from at least monomer selected from the group consisting of vinyl pyrrolidones, hydroxyethyl acrylates, hydroxyethyl methacrylates, hydroxypropyl acrylates, hydroxypropyl methacrylates, acrylic acids, methacrylic acids, acrylic esters, methacrylic esters, vinyl pyridines, acrylamides, vinyl alcohols, ethylene oxides, derivatives thereof, and combinations thereof.